Society Proceedings

NEW YORK NEUROLOGICAL SOCIETY.

April 4, 1905.

The President, Dr. Joseph Fraenkel, in the Chair.

Trophic Disorders in Diseases of the Nervous System.—By Dr. William B. Noyes. The speaker said that many of the most interesting and least understood subjects in medicine could not be claimed exclusively by any one specialty, and the purpose of his paper was to group together cases where changes in the nutrition of the tissues were found closely associated with lesions of the central or peripheral nervous system. In a few instances this connection would be found to be positive; in others it would be little more than a hypothesis. The practical result of the study would be to turn the attention of the physician treating a seemingly local disease of the skin, joints or other soft parts to a broader view of the case, even if it should bring him face to face with some disorders of the nervous system more difficult to handle than the superficial lesions alone.

The skin, the most obvious field for clinical observation, showed most clearly and promptly any change in the general bodily nutrition. The epidermis, hair or nails might each or all be affected. The hair turned gray or white, became brittle or fell out in conditions of failing nutrition, and the changes physiological in old age, might appear in a few hours in cases of great mental or nervous shock. General or local alopecia were in many cases directly associated with functional or organic disorders of the central nervous system. A neuralgia might leave as a permanent mark a patch of gray or white hair. The nails might undergo rapid or gradual change, especially noticeable in multiple neuritis. The skin might suffer atrophy of the cutis, epidermis or both. Senile atrophy of the skin, associated with increased pigmentation of the epidermis and thinning of certain layers, was a condition which might under certain circumstances be seen earlier in life. An idiopathic diffuse atrophy might develop, with general thinning of the integument, increased prominence of the blood vessels and a characteristic red color. After division or destruction of a peripheral nerve by disease certain well-defined trophic disturbances of the skin would occur in time. The skin might also suffer from hypertrophic processes, with hyperplasia affecting its different elements and the subcutaneous tissues. Of this, an ordinary corn was the most simple example. This might become actively inflamed and develop into an abscess, with the subsequent formation of a perforating ulcer. Such perforating ulcers, though appearing in various nervous diseases, were usually associated with locomotor ataxia. Gasquill, who had carefully analyzed 83 cases, found 32 in tabes, 17 in general paralysis of the insane, 14 in diabetes, 8 in alcoholism, 12 in various lesions of the spinal cord, and four of traumatic origin. It also occurred in anesthetic leprosy and syringomyelia. Another disease illustrating hypertrophic changes in the skin was sclerodema, the lesions being characterized by a general induration and immobility of the affected tissues. Nearly all acute skin diseases were vascular disturbances. Anemia of the skin might be general or localized: if the latter, it was due to pressure, constriction or spasm of the vessels, and was therefore a vasomotor neurosis. Chronic ergotism would produce similar paralytic conditions of the vessels, with formication, pain, spasm, anesthesia and coldness, and later local gangrene. The extreme type of this condition was seen in Raynaud's disease, a rare trophic disorder, where the vasomotor spasm developed (1) local asphyxia; (2) symmetrical gangrene.

The skin diseases whose lesions showed a passive or active hyperemia, including the erythemas and dermatites, embrace few examples where any definite nerve lesion was present. A familiar example might be mentioned in the ordinary chilblains, which were the result of a vasomotor neurosis due to vasomotor paralysis from cold. Erythromelalgia, which all modern text-books on nervous diseases classed as a clinical entity, was a rare disease, with exaggerated vasomotor changes, associated with burning sensations, pain, redness and localized swelling. Chronic urticaria was said by as high an authority as Unna to indicate some alteration in the nerves of the vessels. Angioneurotic edema, closely related to urticaria, though originating in the subcutaneous tissues, had recently figured extensively in neurological debates. It stood in the same relation to the central nervous system as exophthalmic goitre, namely, through the sympathetic nervous system.

Herpes zoster was most instructive in showing the relation between the skin and the central nervous system. All recent authorities agreed that it was secondary to changes in the nervous system, and was associated with an acute neuritis. This neuritis was dependent upon lesions of the ganglion cells of the posterior roots of the cord. Another disease similar to zoster was pemphigus. Here again organic changes in the spinal cord and peripheral nerves were reported by occasional observers, but these were not as uniform in location as in zoster, and moreover, these nerve lesions were frequently not found at autopsy.

Psoriasis was one of the most frequent and well-known of skin diseases. That it had a close relation with the nervous system was not commonly understood by dermatologists, but this close relation was maintained by many authorities. It was more often associated with neurasthenia, hysteria, epilepsy, insomnia and other functional nervous diseases than with definite organic disease of the nervous system.

For the proper nutrition of the skin, muscle, bone or other tissue the integrity of the trophic center, its peripheral path and its termination were essential. Any localized and sudden disturbance of nutrition, when not due to shutting off of the blood-supply, was the result of irritation or destruction of peripheral nerve trunks or spinal centers. The nerve endings, if they had not a structural continuity with the tissues, at any rate seemed to modify the nutrition of their cells. It was known that disease of the neurones, whether intraneural or extraneural in its origin, progressed from the center down the neurone or axis cylinder to the end organs. Then, some irritation or failure in vitality appeared in the tissues, be they skin, muscle, cartilage or bone.

In the concluding portion of his paper Dr. Noyes discussed the various trophoneuroses, particularly in their relation to diseases of the joints. Chronic arthritis appeared as (1) chronic serous arthritis; (2) chronic purulent arthritis; and (3) dry, ulcerative arthritis. It was the last form that especially interested the neurologist. It was a local disease of the joints characterized by erosion of the cartilages, thickening of the capsule and denudation of bone. It might appear as a disease of old age, or be associated with organic nervous disease, as in Charcot's joints, or associated with chronic rheumatic disease, or as a chronic arthritis deformans. General paralysis of the insane caused changes of the spinal cord almost identical with those of tabes, and sometimes caused Charcot's joints. Another type of Charcot's joints was seen in syringomyelia, and still another in leprosy. Dr. Noyes then described these different types of chronic ulcerative arthritis, and showed a number of X-ray photographs illustrating the same.

Dr. Henry Rafel said he had frequently heard the statement that persons with psoriasis were otherwise unusually healthy, and this was in accord with his own experience.

Dr. Joseph Fraenkel said that many of the points brought up for discussion in Dr. Noyes' paper rested largely on a clinical basis, and it remained for the neurologists to explain the connection between the various lesions of the skin, joints, etc., and the nervous system. A few of the facts in connection with the exhaustive study made by Foerster in a large number of cases of tabes, which seemed to prove that the sensory neurone, in addition to the conduction of sensation, was a very important factor in the nutrition of tissues.

Two Cases of Acute Homonymous Hemianopsia.—Reported by Dr. B. Sachs.

Case I.—The patient was a man, sixty-three years old, an upholsterer, who had been married thirty years. His family history was negative. The patient had suffered from mid-winter cough, with some dyspnea on exertion, for many years. Eighteen months ago he had slipped, striking his head; he was dazed for a time, but was able to get up without aid and walk home. His urine was normal. For some time he had noticed an impairment of his sight, particularly at night, when he had to give up reading.

The patient was admitted to Mt. Sinai Hospital on March 4, 1905. Four weeks previous to that time he had suddenly noticed that he could not see an object approaching him on the left side. Pupillary reflexes were normal. There was no double vision, nor other visual symptoms; no headache nor vomiting; no hemianesthesia; no ataxia; no evidence of hemiplegia. Examination showed nothing but a left homonymous hemianopsia, the outer field of the left eye and the inner field of the right eye being obscured.

The interesting point about the case, Dr. Sachs said, was that the condition occurred in a man of 63, of infantile physique, and was apparently due to a thrombosis of one of the branches of the posterior cerebral artery, and there was an absence of the usual symptoms following a thrombosis of one of the branches of the middle cerebral. As to the site of the lesion, in the absence of hemianesthesia and hemiplegia, it must have either involved the optic radiations, or possibly the visual center in the occipital lobe, the only symptom being an hemianopsia, and without local pain. The speaker said he was inclined to believe that it was due to an area of softening involving the optic radiations.

Case II.—The patient was a young woman of eighteen. The history she gave was that she had been suffering from a slight nasal catarrh, and a few days ago, on blowing her nose, she was suddenly seized with an intense headache, and a feeling as though something had burst in the back of her head on the right side. She also immediately noticed that something was wrong with her vision. The only symptom her physician could find was a left lateral hemianopsia, and this diagnosis had been made also by Dr. Charles L. Dana, who had previously seen the patient.

As to the cause of the lesion in this case, the diagnosis rested between hemorrhage and an embolism. The girl had a distinct cardiac murmur and a dilated right heart, probably the remains of an old endocarditis. The speaker said he was inclined to believe that with an embolism the general shock would have been greater than it was. On the other hand, the intensity of the headache, and the rapidity with which the symptoms developed, seemed to point to a hemorrhage as the cause of the trouble, in spite of the doubtful heart condition.

A Case of Diplopia.—Reported by Dr. Sachs. The patient was a man, thirty-five years old, a resident of the South, who on November 1, 1904, was thrown from his buggy, striking on his head. He was unconscious for twelve days after the accident. When he regained consciousness the physician who attended him noticed a slight difficulty of speech, and a little stiffness when he attempted to walk, but there was no paralysis.

When Dr. Sachs first saw the patient, about two weeks ago, the only symptom he could find was a peculiar form of diplopia, apparently resulting from a paralysis of the left superior oblique muscle. This was confirmed by Dr. A. Wiener, the oculist. This muscle was deficient, and gave rise to two vertical images.

The case was interesting because of the comparatively slight residue of what was apparently a severe traumatic hemorrhage in the vicinity of the fourth nerve nuclei

Dr. Arthur C. Brush said that cases of hemianopsia like those reported by Dr. Sachs were not particularly rare. In one case that came under his observation the patient was a young man, an athlete, with a much hypertrophied heart and thickened arteries, who at the end of a bicycle ride from Coney Island to Brooklyn suddenly felt dizzy and could not see. When Dr. Brush saw him on the following day there was a distinct hemianopsia, and nothing else. The man was totally blind on one side of each retina. His only other symptom consisted of severe mental depression. The hemianopsia was permanent.

Another case seen by Dr. Brush was that of a young woman of thirty, who stated that on attempting to lift some heavy weight she suddenly became dizzy, and had also vomiting and headache, and partial loss of vision on one side. This on examination proved to be due to a hemianopsia. In both of these cases there was evidently a predisposition to the occurrence of arterial lesions. Where the particular lesions were in these cases the speaker said he did not know.

Dr. William M. Leszynsky said that during the last four or five years he had seen several cases of complete homonymous hemianopsia at the Manhattan Eye and Ear Hospital. In the absence of evidence of involvement of any other portion of the optic tract, he was forced to conclude that the lesion was situated in the cuneus, being due to hemorrhage or thrombotic softening. All the patients were about fifty years of age.

Dr. J. Ramsay Hunt said that last summer he saw a woman, about sixty, who suddenly developed an isolated paralysis of the right superior oblique muscle. She was examined by Dr. Colman W. Cutler, and showed the characteristic diplopia. There were, however, no other evidences of acute nervous disease. On account of her age, a vascular lesion in the bulb or pons might be suspected, but the paralysis cleared up entirely within two weeks. Before going to bed she had washed her hair, and the next morning the impairment of vision was noted, accompanied by a neuralgic pain in the orbit, and a tendency to dizziness. There was no vomiting. In the experience of ophthalmologists, Dr. Hunt said, these cases are not extremely rare, and they interpret them as rheumatic neuritis of the trochlearis nerve.

Dr. Hunt said he recalled a case in which the hemianopsia was complete, and was evidently syphilitic in origin. In another case, a man rather advanced in life, the hemianopsia appeared suddenly with vertigo and headache. In such a case the lesion is probably situated in the occipital branch of the posterior cerebral artery.

Dr. Leszynsky said that paralysis of the superior oblique was not uncommon, and when it did occur it was often difficult to tell whether the diplopia was due to paralysis of the superior oblique or of the inferior rectus. The correct interpretation of the condition required a long and careful study of the false image associated with the diplopia. The speaker said he had never seen the superior oblique involved simply as a residual symptom.

Dr. Sachs, in closing, said he did not wish to be understood as saying that he regarded hemianopsia as a very rare condition. In both of the cases he had reported the heminaopsia came on in a very acute fashion, and was unaccompanied by other symptoms. Of course, the symptom was not uncommon in cases of cerebral paralysis. The speaker said he had never seen a paralysis of the superior oblique as the sole residuum of a rather severe injury, such as that reported in his first case.